Current Titles in the

Learning with LogoWriter Series

On Your Mark, Get Set, Go

Word Adventures

Words Come Alive!

You and Your Friends

News, Views, and Information

Get the Facts!

And more to come...

LCSI

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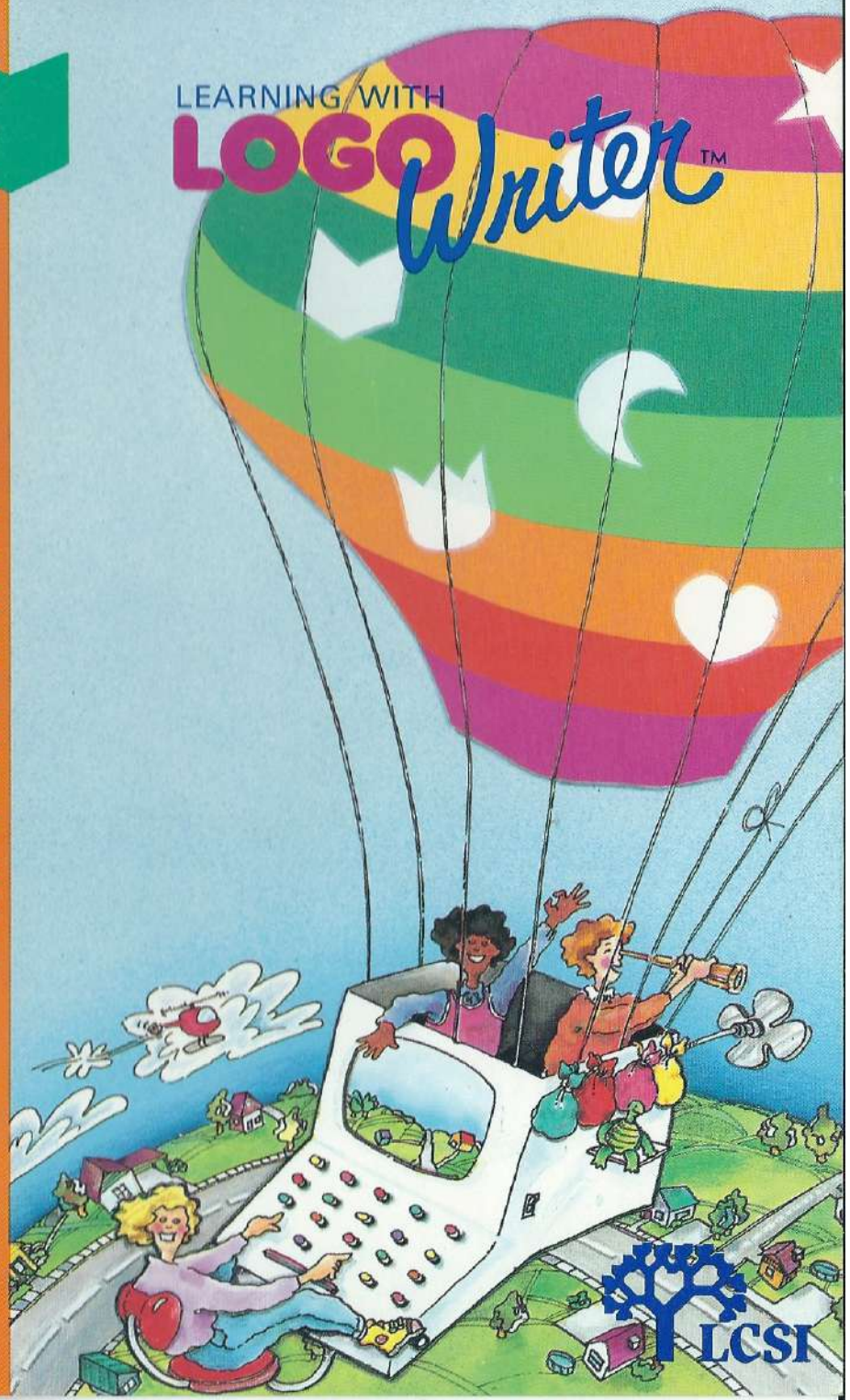
Words Come Alive!

LEARNING WITH

LOGO Writer™



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Learning with LogoWriter

Words Come Alive!

by Logo Computer Systems Inc.

ZELLERS ELEMENTARY SCHOOL
STRONGSVILLE PUBLIC SCHOOLS

Montréal New York Tokyo

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How To Create Your Own Shapes

Create new shapes for the turtle to wear. It's easy!

Go to the Shapes page.

To go to the Shapes page:

- Go to the Contents page and choose Shapes.

or

- Type:

shapes

Use the **flip** keys to go to the flip side of the page.

Press ⌘F Ctrl-F

Shape 1 is showing.

shape 1 The blinking square is the shape cursor.

To see all the shapes, use the **next screen** or **previous screen** keys.

Press ⌘→ Fn→ Pg Dn or ⌘← Fn← Pg Up

Shapes are made out of little squares.

Find an empty shape (shapes 1 through 10 are empty).

Use the **arrow** keys to move the cursor.

Press **Space bar**.

The square under the shape cursor is filled.

Press **Space bar** again.

The square is empty.

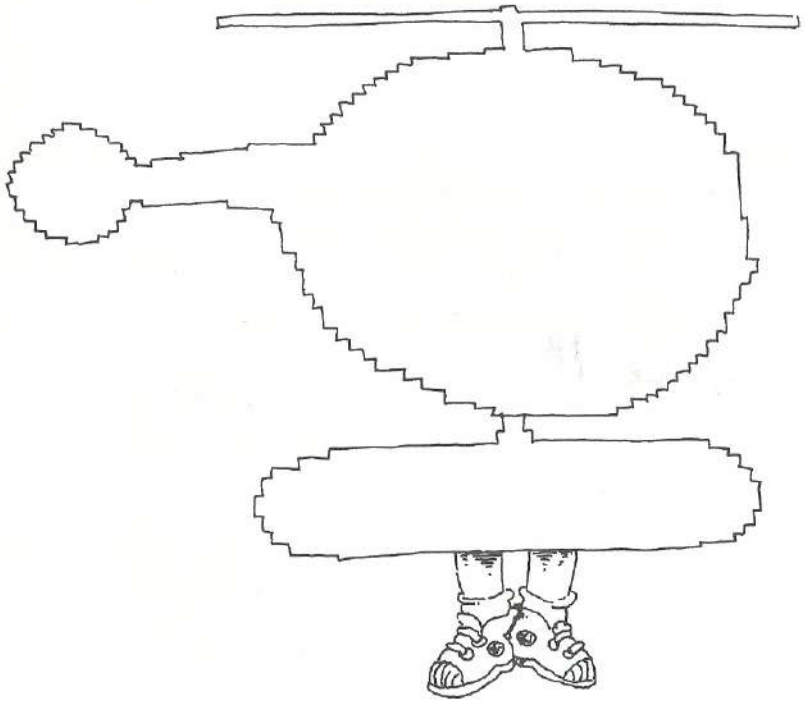
Move the cursor around with the **arrow** keys, and press **Space bar** again.

Try it a few times.

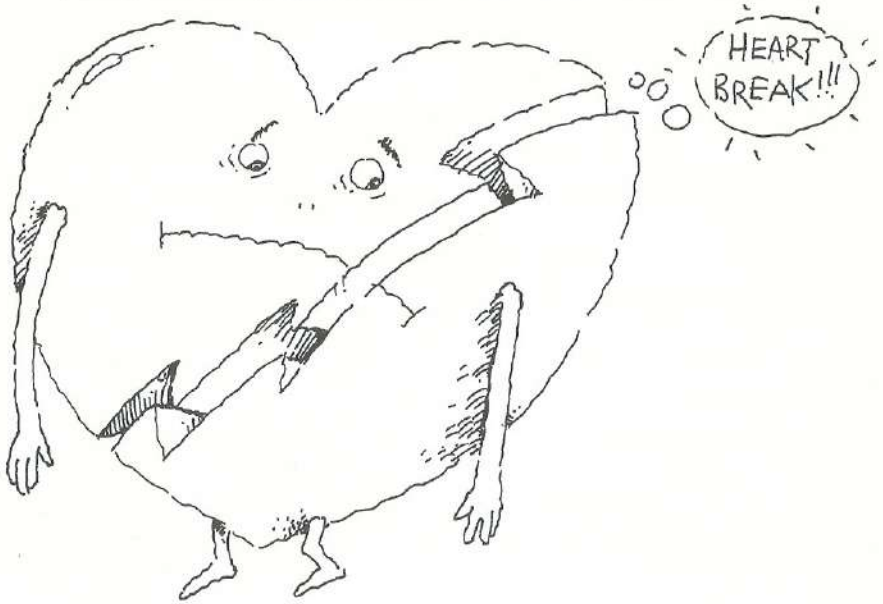
Go to the front side of the page to see what you made:

Press ⌘-F Ctrl-F

ESC Press **Escape** to leave the Shapes page.



Pun Fun



Cartoons can be used to tell jokes or puns. Make a pun cartoon starring your very own cartoon character.

Did you ever see time fly?

Making Your Shapes

Use the Shapes Page Reference Card to help you.

Make a clock. Use shape 1:

```
shape 1
```

To make a big character, combine 2 shapes.

Here are some ideas. Use these shapes or create your own!

```
shape 15
```

```
shape 16
```

The Man

Start by setting the turtle to the head shape:

```
setsh 15
```

How can you see 2 shapes at the same time?

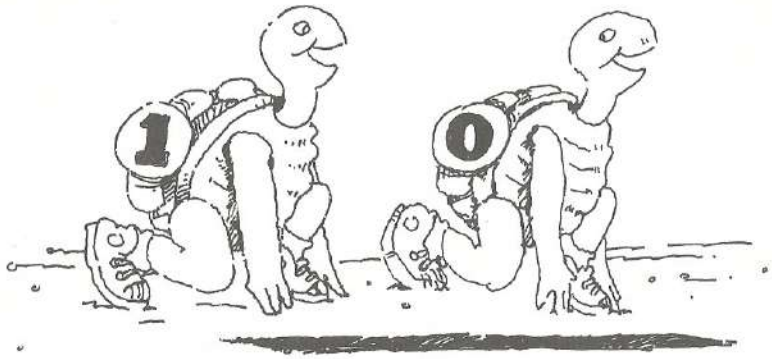
You need another turtle! Tell another turtle to show.

Type:

```
tell 1
st
```

Each of LogoWriter's turtles has a number.

The turtle's number is its name.



You're now talking to turtle 1.

```
setsh 16
```

Use the shape you used for the body.

Put the body and head together.

Now put your instructions into a procedure:

Press the **flip** keys to go to the flip side of the page.

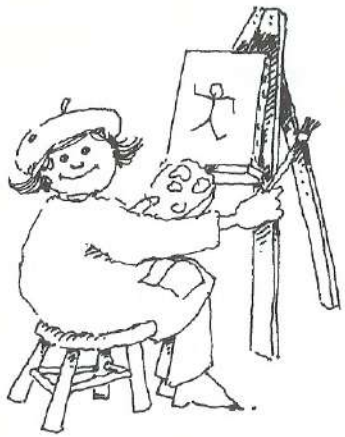
```
to man
tell 0
setsh 15
tell 1
st
setsh 16
pu
fd 20
end
```

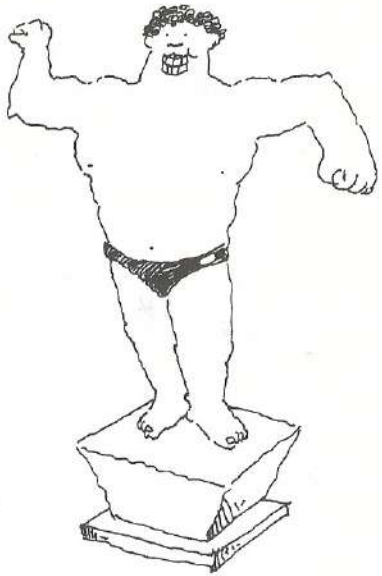
This tells turtle 0 to follow your instructions.

This tells turtle 1 to follow your instructions.

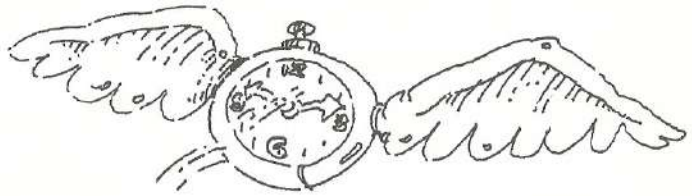
Try your procedure:

```
rg
man
```





The Clock



You need another turtle for the clock:

```
tell 2
st
setsh 1
```

Use the shape you used for the clock.

Place the clock where you want it to be.

Then put your instructions into a **clock** procedure:

```
to clock
tell 2
st
setsh 1
pu
rt 90
fd 20
lt 90
fd 30
end
```

Use your instructions to place the clock.

Try it out:

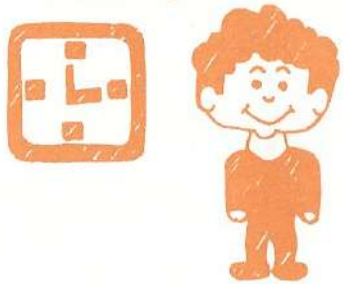
```
rg
man
clock
```

Getting Your Message Across

Print the words of the pun:

```
print [Did you ever see time fly?]
```

Did you ever see time fly?



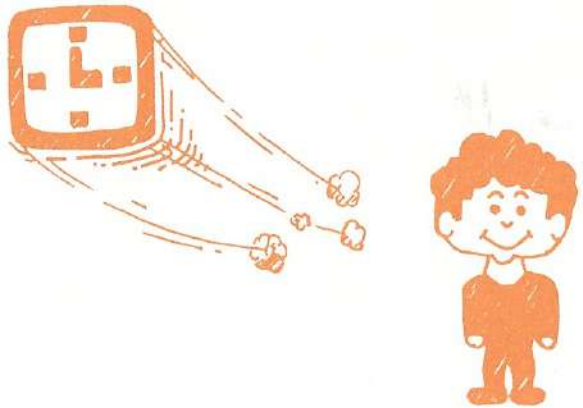
Now it's time to show how time flies. How can you get the clock to move?

Try this:

```
repeat 40 [fd 2]
```

You can change how far the clock flies by changing this number.

What happens if you change this number?



Presenting Your Pun

Now for the final touch!

Put all your instructions into a superprocedure:

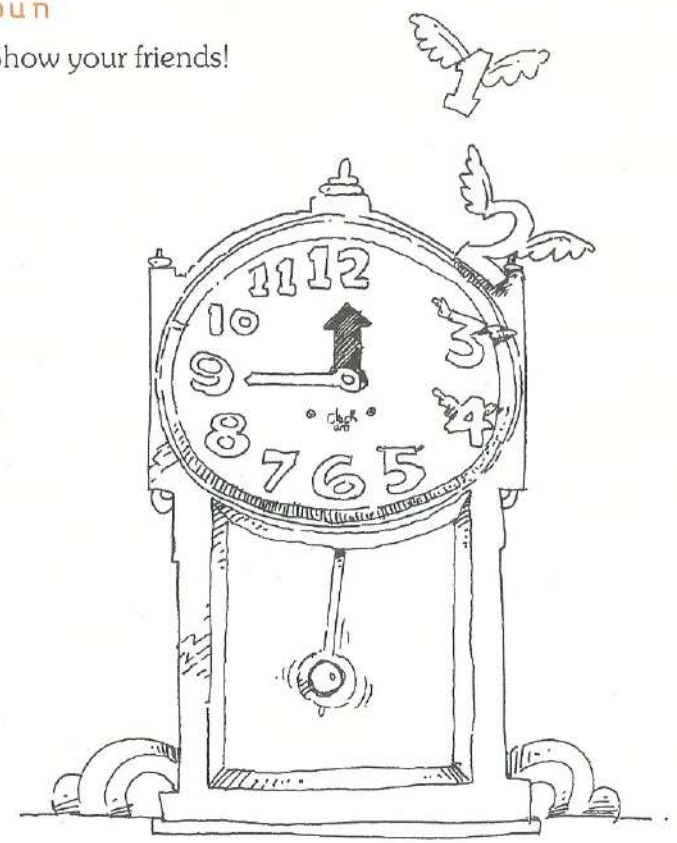
```
to pun
rg ct
man
clock
print [Did you ever see time fly?]
repeat 40 [fd 2]
end
```

This resets the graphics and clears the text.

Try it!

```
pun
```

Show your friends!



Try these ideas

Add sound to your cartoon.

```
to ring
repeat 5 [tone 2000 1 tone 1000 1]
end
```

This sets how high or low the sound will be.

This sets how long the sound lasts.

Experiment with different numbers.

Put **ring** into your **pun** procedure:

```
to pun
rg ct
man
clock
print [Did you ever see time fly?]
repeat 40 [fd 2]
ring
end
```

More Things to Do

Here are some activity cards for you to do. They all have orange tabs.

Tulip Garden

Rocket Take Off

Line Gobbler

It's Snowing!

Snowman

On the Road

Ferris Wheel

Row, Row, Row Your Boat – A Music Video

Music + Cartoon = a LogoWriter music video.

Turn a song into a cartoon!

Making Your Shapes

Make a rowboat out of two shapes.

shape 2

shape 3

Your shape numbers may be different.

Use these shapes for the rowing sailor or create your own.

shape 18

shape 19

The Boat

Start by making the boat. Use two turtles.

Set the turtles to the two boat shapes.

```
rg
setsh 3
tell 3
st
setsh 2
```

Your shape numbers may be different.

Put the boat shapes together.

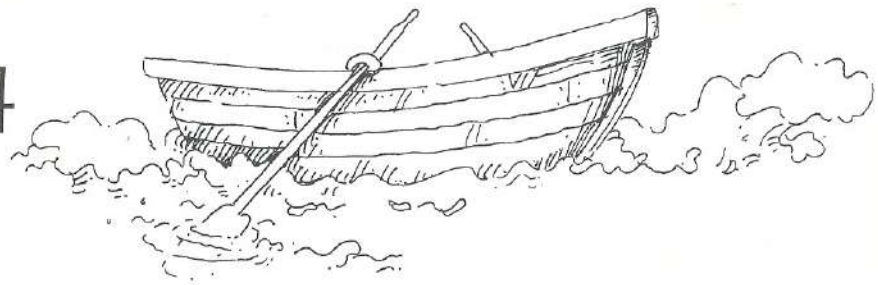
Define a **boat** procedure:

```
to boat
tell 0
setsh 3
pu
tell 3
st
setsh 2
pu
rt 90
fd 20
end
```

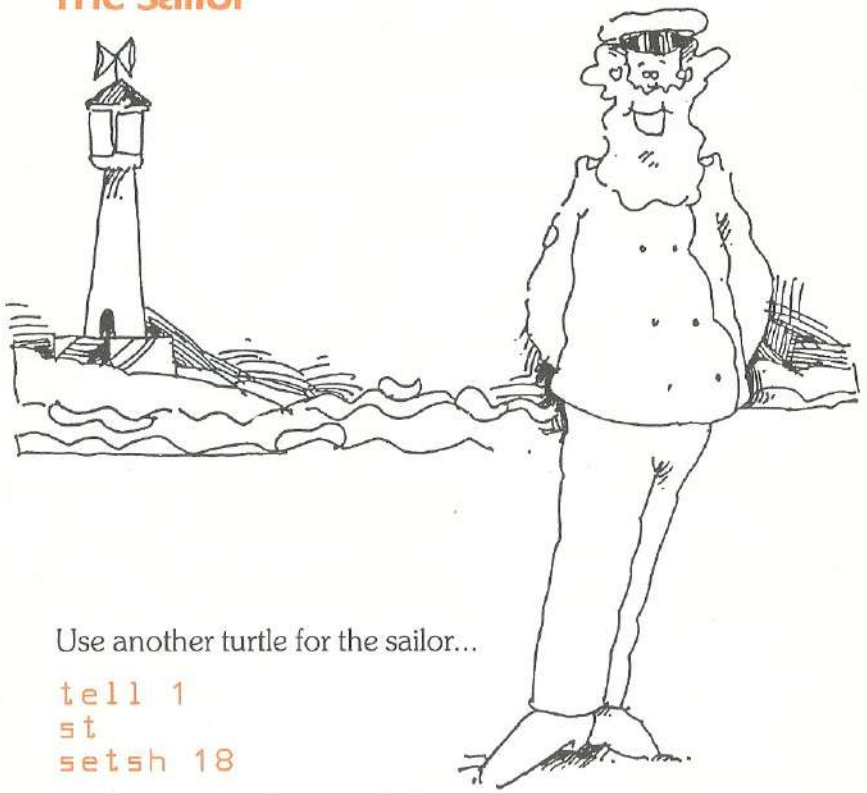
Put in the instructions you used to move the boat shapes together.

Try it!

```
rg
boat
```



The Sailor



Use another turtle for the sailor...

```
tell 1
st
setsh 18
```

...and put the sailor into the boat.

Define a **sailor** procedure.

```
to sailor
tell 1
st
setsh 18
pu
fd 45
end
```

Put the instructions you used to place the sailor in the boat.

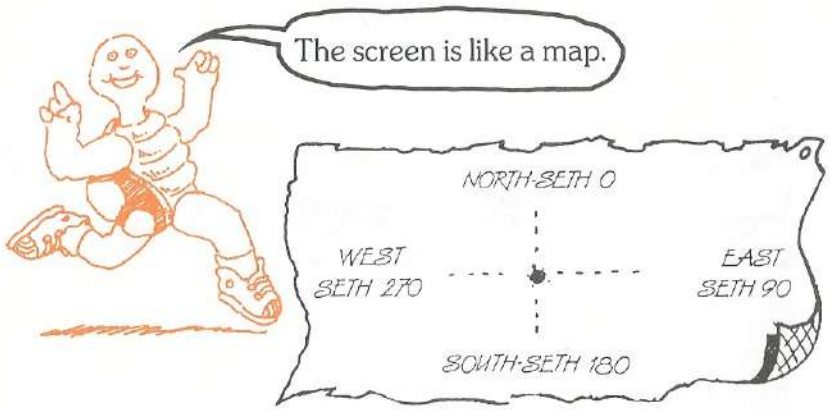
Try your procedures:

```
rg
boat
sailor
```

Setting Things Up

To get turtles 0, 3, and 1 to move together, they must be heading in the same direction.

Use **seth** (this stands for **set h**eading) to turn the turtles.




```
tell [0 3 1]
seth 90
```

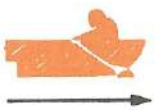
Now when the turtles move, they will all move in the same direction.

Try:

```
repeat 10 [fd 2]
```

Define a **setup** procedure that sets up the boat and the sailor and heads them in the same direction:

```
to setup
boat
sailor
tell [0 3 1]
seth 90
end
```



Try it:

```
rg
setup
```


Row Your Boat

Change turtle 1's shape quickly:

```
tell 1
setsh 19
setsh 18
setsh 19
setsh 18
```

It looks like the sailor is rowing!

Define a procedure to make the sailor row:

```
to row
setsh 19
wait 5
setsh 18
wait 5
end
```

Repeat it a few times:

```
repeat 10 [row]
```

Moving Right Along

The sailor is rowing, but the boat isn't getting anywhere!

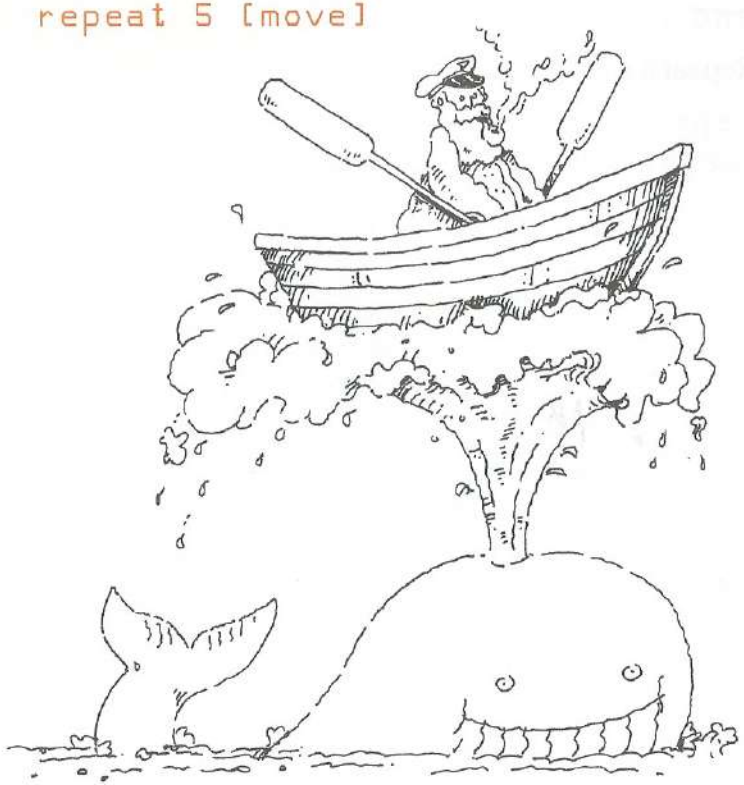
Every time the sailor rows once, the boat and the sailor should move forward.

The **move** procedure puts both actions together:

```
to move
tell 1
row                    The sailor rows.
tell [0 3 1]
fd 5                   The sailor and the boat move.
end
```

Try it:

```
repeat 20 [move]
repeat 5 [move]
```



Adding Music

Tone plays different notes:

```
tone 262 5
```

This sets how high or low the sound is.

This sets how long the sound lasts.

Define a procedure for each note in the first two lines of "Row, Row, Row Your Boat". The notes are c, d, e, f, and g.

To play c, the first input to tone must be 262. But the second input can be any number. It depends on how long you want the sound to last.

The **c** procedure uses an input.

This tells LogoWriter that **c** needs an input.

```
to c :time
tone 262 :time
end
```

Since this input to tone will be different each time, you can't put in a number. Instead, give it a name. The colon (:) in front of time shows that it is a name.

Now it is easy to change the length of time the sound lasts. Just change the input to **c**.

Try it:

```
c 10
c 1
c 90
```

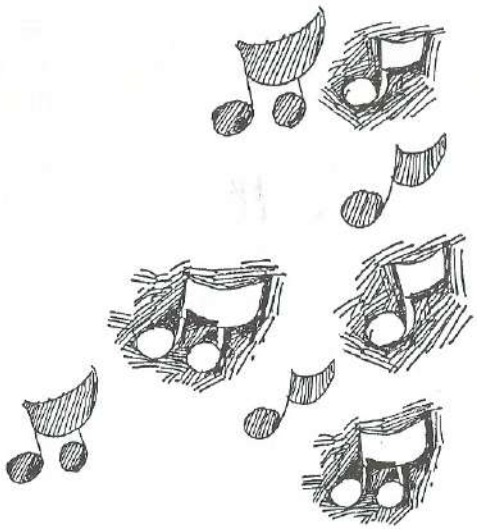
C is like **forward** or **right**. You must give it an input.

Here are procedures for the other notes:

```
to d :time
tone 294 :time
end

to e :time
tone 330 :time
end

to f :time
tone 349 :time
end

to g :time
tone 392 :time
end
```

The **begin** procedure plays the first line of "Row, Row, Row Your Boat":

```
to begin
pr [Row, row, row your boat.] Print the words!
c 5
wait 5
c 5
wait 5
c 5
wait 1
d 5
wait 1
e 5
wait 5
end
```

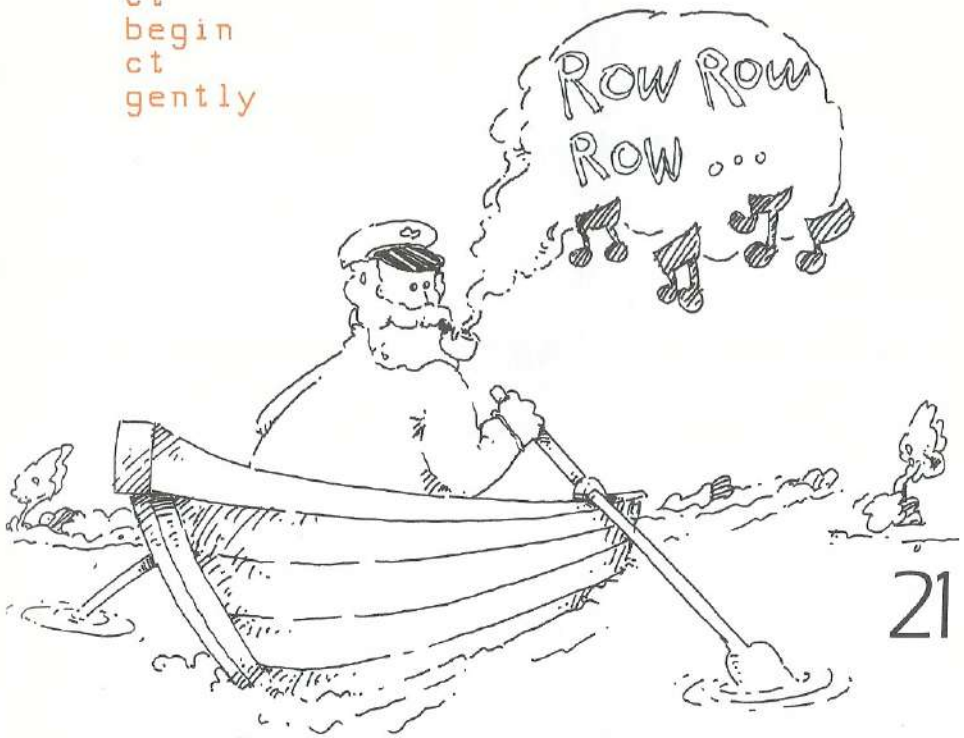


The **gently** procedure plays the next line:

```
to gently
pr [Gently down the stream.]
e 5
wait 1
d 5
wait 1
e 5
wait 1
f 5
wait 1
g 5
end
```

To hear how they sound, type:

```
ct
begin
ct
gently
```



Presenting Your Video

Decide how you want to present your music video. Then define a procedure to present it.

Here is one way to do it:

```
to video
rg ct
setup
repeat 5 [move]
begin
repeat 5 [move]
ct
gently
repeat 10 [move]
end
```

Try it:

```
video
```

Show your friends!

Try these ideas

- Figure out how to play the rest of "Row, Row, Row Your Boat". Add the other lines to your video.
- Draw a background for your video.
- Write a story about the sailor who is rowing. Make a cartoon that tells the story.

More Things to Do

Here are some activity cards for you to do. They all have orange tabs.

One Square for All Sizes!

Gift Box

Helicopter

Traffic Signs

A Fill-in Procedure

Draw Thick Lines

Look at All Your Pages!

Glossary

Here is a list of the primitives introduced in this booklet:

Commands	Short Forms
print	**pr**
seth (for **set h**eading)	
tell	
tone	
wait	